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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,697	03/26/2004	Neil Hamilton	182-02 US	7854

25319 7590 06/09/2006

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EXAMINER

DU, THUAN N

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/809,697

Applicant(s)

HAMILTON, NEIL

Examiner

Thuan N. Du

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-22 are presented for examination.

Drawings

2. The drawings were received on August 13, 2004. These drawings are acceptable.

Duplicate Claims

3. Applicant is advised that should claim 9 be found allowable, claim 10 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "the first FCB having a clock control port for providing a first clock control signal" while the specification describes that the first clock control signal is provided by

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the SFB [application's specification, p. 5, ll 7-9]. It is not clear whether the clock control signal is provided by the FCB or the SFB.

Claims 2-10 are also rejected for incorporating the above deficiency by dependency.

Regarding claim 11, it is not clear whether "a second clock circuit" in lines 10 and 13 the same or different from "a second clock circuit" in line 5.

Claims 12-18 are also rejected for incorporating the above deficiency by dependency.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 21 and 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 21 and 22 are not limited to tangible embodiments. The "storage medium" as claimed is not limited to tangible embodiments. The "storage medium" as claimed could be considered as including both tangible embodiments (e.g. computer readable medium) and intangible medium (e.g. a piece of paper). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Boice et al.

[Boice] (U.S. Patent No. 6,301,671).

10. Regarding claim 1, Boice teaches a computing device comprising:

a clock circuit (13) for generating a first clock signal and a second clock signal [col. 3, lines 54-57];

a first sub functional block (SFB) (75) having an input port for receiving the first clock signal (22) [Fig. 4; col. 5, lines 6-10];

a first functional circuit block (FCB) (65) including the first SFB and for operating in accordance with predetermined parameters [col. 5, lines 1-3], the first FCB having a clock control port for providing a first clock control signal (80) [Fig. 4; col. 5, lines 56-60] and a first clock signal input port for receiving a switchably coupled second clock signal (26) [Fig. 4; col. 5, lines 40-42], the first FCB having a circuitry portion (77) for operating in one of a normal mode of operation and in a reduced power consumption mode of operation in dependence upon the switchably coupled second clock signal [Fig. 4; col. 5, line 66 to col. 6, line 14]; and,

a first clock control circuit (40) for receiving the second clock signal [col. 3, lines 54-57] and for switchably coupling the second clock signal to the first clock signal input port in dependence upon the first clock control signal [col. 6, lines 6-12].

11. Regarding claim 2, Boice teaches that the system comprising more than one FCB (e.g. I block, HSU block) each including at least one corresponding SFB operates in the same manner [col. 4, lines 66-67].

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 3, 6-9, 11-13 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boice et al. [Boice] (U.S. Patent No. 6,301,671).

14. Regarding claim 3, Boice does not teach that the system including a second clock control circuit. However, one of ordinary skill in the art would have recognized that the system would still operate in the same manner whether having separate control circuits or a single common clock control circuit.

15. Regarding claims 6 and 7, Official Notice has taken that more than one power consumption modes between normal mode of operation and reduced power consumption mode of operation are well known in the art. And, it would have been obvious to one of ordinary skill in the art to recognized that the circuitry adaptable those modes.

16. Regarding claims 8 and 9, Official Notice has taken that frequency multiplier/divider used for changing the clock frequency is well known in the art. And, it would have been obvious to one of ordinary skill in the art to couple the frequency multiplier/divider in between the clock circuit and the FCB to change the clock frequency input to the FCB.

17. Regarding claim 11 and 19, Boice teaches a method of controlling power consumption comprising the steps of:

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providing a first FCB (15) for processing data using a first clock signal provided by a clock circuit [Fig. 2, col. 4, lines 16-18];

providing a second FCB for processing data using a second clock signal provided by the clock circuit [Fig. 2, col. 4, lines 22-23];

receiving a FCB control signal by the first FCB and the second FCB [Fig. 2; col. 4, lines 14-16, 20-21; col. 3, lines 50-54];

determining whether the FCB control signal is for operating of at least one of the first FCB and the second FCB in one of a normal mode of operation and a reduced power consumption mode of operation [Fig. 2; col. 4, lines 14-16, 20-21]; and,

performing one of enabling of at least one of the first clock and the second clock in dependence upon whether at least one of the first FCB and the second FCB are for operating in the normal mode of operation and varying a frequency of at least one of the first clock and the second clock in dependence upon whether at least one of the first FCB and the second FCB are for operating in the normal mode of operation [Fig. 2; col. 4, lines 14-24].

Boice does not teach that the system including a second clock control circuit. However, one of ordinary skill in the art would have recognized that the system would still operate in the same manner whether having separate control circuits or a single common clock control circuit.

18. Regarding claims 12 and 20, Boice teaches that determining whether at least one of the first FCB and the second FCB are selected for processing data [col. 4, lines 9-13].

19. Regarding claims 13 and 20 Boice teaches that operating in the reduced power consumption mode of operation comprises disabling a majority of internal circuitry within at least one of the first FCB and the second FCB [col. 5, lines 5-18].

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20. Regarding claims 17 and 18, Boice teaches that disabling the clocks are not necessary [col. 4, lines 7-8]. Therefore, in order for the FCB operates in reduced power mode, Boice would decrease the clock frequency.

21. Regarding claims 21 and 22, Boice teaches the claimed method steps. Therefore, Boice teaches the instruction for carrying out claimed method steps.

Allowable Subject Matter

22. Claims 4, 5 and 14-16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan N. Du whose telephone number is (571) 272-3673. The examiner can normally be reached on Monday-Friday: 9:30 AM - 6:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (571) 272-3670.

Central TC telephone number is (571) 272-2100.

The fax number for the organization is (571) 273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

TD
June 6, 2006

A handwritten signature in black ink, appearing to read 'Tuan N. Du', with a large, sweeping initial 'T'.

TUAN N. DU
PRIMARY EXAMINER